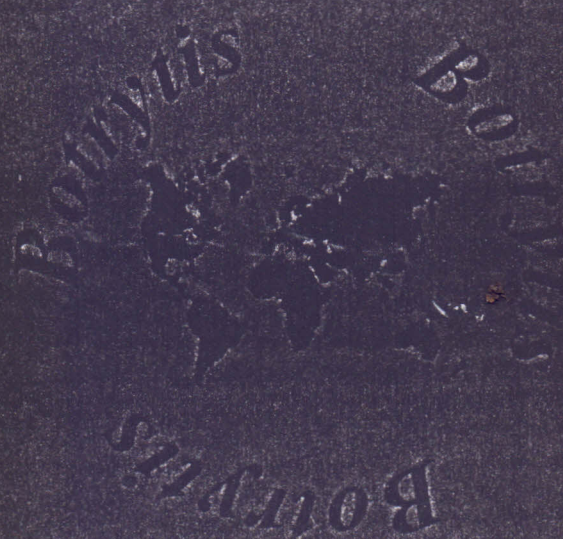

XIth International Botrytis Symposium

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L3-6 *BOTRYTIS CINEREA* SURVIVAL IN CROP DEBRIS OF ROSES AND AS SCLEROTIA IN SOIL

A. E. Araújo, L. A. Maffia, E. S. G. Mizubuti, G. de Capdeville, A. C. Alfenas and J. A. S. Grossi
Departamento de Fitopatologia, Universidade Federal de Viçosa, 36571-000, Viçosa, MG, Brasil

Gray mold, caused by *Botrytis cinerea,* is one of the most important rose diseases in Brazil. Bud losses by the disease are severe on shipments to both internal and external markets. Thus a research program to study the etiology, epidemiology and management of gray mold was established in 1993. This is a report on the survival of the pathogen in crop debris and as sclerotia, studied from July/93 to June/94.

Diseased petals, stem sections and leaflets were set inside bags made of polyethylene nets. The bags were mixed with crop debris under rose plants in a commercial plastic house. Four bags of each plant material were taken monthly to the laboratory, where fungus sporulation was assessed. On stems and leaflets sporulation was 100% until 60 days and decreased gradually after 90 days. No sporulation was noticed on stems and leaflets after 150 and 240 days, respectively. On petals 100% sporulation was observed until 90 days, decreased gradually after 120 days, and lasted throughout the whole assay. Although the fungus survived longer on petals, stems and leaflets are also important sources of inoculum. Throughout the rose seasons, the amount of diseased stems and leaves left on the ground of plastic houses is higher than the amount of fallen petals.

The survival of sclerotia produced on PDA was also studied. They were counted, weighted and enclosed in nylon bags which were buried in soil 10 cm down, in a plastic house. Afterwards, four bags were taken to the laboratory at monthly intervals. Sclerotia were again counted and weighted, and also plated on PDA to be evaluated for myceliogenic germination. Germination was higher than 75% in the first 210 days and higher than 50% by the end of the assay. Sclerotial viability was maintained throughout the year, although a gradual reduction in weight was observed.

On the assay of fungus survival on crop debris, high production of sclerotia was observed on petals and no sclerotia were found on leaflets and stems. The production was maximal until 90 days after the beginning of the assay. Sclerotia germination was highly variable and decreased fast after 120 days. Although germination was low it was stable until the end of the assay. Sclerotia produced on petals lost more weight and were less viable than those produced *in vitro*. However both types of sclerotia remained viable throughout these one-year assays.